

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE 4949-A Cox Road, Glen Allen, Virginia 23060 (804) 527-5020 FAX (804) 527-5106 www.deq.virginia.gov

Matthew J. Strickler Secretary of Natural Resources David K. Paylor Director (804) 698-4000

James J. Golden Regional Director

September 3, 2019

Mr. Leon Marineau Vice President Environment 819 Virginia LLC 471, boul. Marie-Victorin Kingsey Falls (Quèbec) JOA 1BO

Location: Hanover Registration No: 50840

Dear Mr. Marineau:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all conditions carefully.

This approval to operate does not relieve 819 Virginia LLC of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The <u>Regulations</u>, at 9VAC5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director Department of Environmental Quality P.O. Box 1105 Richmond, VA 23218-1105 In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact the Piedmont Regional Office at (804) 527-5020.

Sincerely,

Kyle Ivar Winter, P.E. Deputy Regional Director

KIW/JH/50840 TVR

Attachments: Permit

cc: Director, Office of Permits and Air Toxics (3AP10), U.S. EPA, Region III

Director, OAPP

Inspector, Air Compliance



VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE 4949-A Cox Road, Glen Allen, Virginia 23060 (804) 527-5020 FAX (804) 527-5106 www.deq.virginia.gov

Matthew J. Strickler Secretary of Natural Resources David K. Paylor Director (804) 698-4000

James J. Golden Regional Director

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name: 819 Virginia LLC

Facility Location: 10026 Old Ridge Road

Ashland, Virginia

Registration Number: 50840
Permit Number: PRO-50840

This permit includes the following programs: Federally Enforceable Requirements – Clean Air Act (Pages 7 through 32)

September 3, 2019
Effective Date

September 2, 2024
Expiration Date

Kyle Ivar Winter, P.E.
Deputy Regional Director

September 3, 2019
Signature Date

Table of Contents 1 page Permit Conditions, pages 7-32

Table of Contents

Facility Information	3
Emission Units	
Fuel Burning Equipment Requirements: B&W COMBINATION BOILER (ID#2)	7
Fuel Burning Equipment Requirements: PACKAGE BOILER – (ID#3)	
Wood Yard Equipment Requirements – Wood Yard – (ID#4)	15
Thermomechanical Pulp Mill Equipment Requirements – (ID#1)	
Waste Water Treatment Plant Requirements – (ID#5)	19
Paper Mill Equipment Requirements - Paper Machine – (ID#6)	19
Recycle Plant Equipment Requirements – (ID#7)	20
Parts Washer Equipment Requirments - Non-Halogenated Cold Solvent Degreasers – (ID#8)	20
Industrial Landfill Equipment Requirements – (ID#9)	21
Fuel Burning Equipment Requirements - Emergency Diesel Fire Pump – (ID#10)	21
Facility-Wide Conditions	22
General Compliance Assurance Monitoring (CAM) Provisions	23
Insignificant Emission Units	24
Permit Shield & Inapplicable Requirements	25
General Conditions	26
Compliance Assurance Monitoring Plan	33

Page 3

Facility Information

Permittee

819 Virginia LLC 471, boul. Marie-Victorin Kingsey Falls (Quèbec) JOA 1BO

Responsible Official

Lucie-Claude Lalonde Corporate Secretary (450) 461-8631

Contact person

Leon Marineau Vice President Environment (819) 363-5750

County-Plant Identification Number: 51-085-0042

Facility Description: NAICS 322122- 819 Virginia LLC is a newsprint paper manufacturing facility. The facility mixes newsprint made from trees with recycled paper. The facility consists of the following: wood yard, thermomechanical paper mill (TMP), combination boiler, package boiler, wastewater treatment plant, recycle plant, paper mill and supporting operations.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
2 (PH-1A)	PHS-1	Babcock & Wilcox Combination Boiler Coal – primary fuel	243 mmBtu/hr	Multi-cyclone and Electrostatic Precipitator	PHC-1A PHC -1B	PM/PM-10	7/9/2019
2 (PH-1B)	PHS-1	Babcock & Wilcox Combination Boiler Bark/Paper Sludge/Wood Chips/Combustion – primary fuel	147.4 mmBtu/hr	Multi-cyclone and Electrostatic Precipitator	PHC-1A PHC -1B	PM/PM-10	7/9/2019
2 (PH-1C)	PHS-1	Babcock & Wilcox Combination Boiler Number 2 Fuel Oil - secondary fuel	122 mmBtu/hr	Multi-cyclone, Electrostatic Precipitator and low sulfur fuels not to exceed 0.2%	PHC-1A PHC -1B	PM, PM- 10, SO2	7/9/2019
2 (PH-1D)		Babcock & Wilcox Combination Boiler Natural Gas - primary fuel	122 mmBtu/hr	Multi-cyclone, Electrostatic Precipitator	PHC-1A PHC -1B	PM/PM-10	7/9/2019
2 (PH- 1ABCD)		Babcock & Wilcox Combination Boiler Natural Gas – start up, primary fuel	5.2 mmBtu/hr	Multi-cyclone, Electrostatic Precipitator	PHC-1A PHC -1B	PM/PM-10	7/9/2019
2 (PH- 1ABC)	PHS-1	Babcock & Wilcox Combination Boiler Propane – start up, primary fuel	12.5 mmBtu/hr	Multi-cyclone and Electrostatic Precipitator	PHC-1A PHC -1B	PM/PM-10	7/9/2019
3 (PH2-2A)	PHS-2	Package Boiler Natural Gas/Propane Combustion	243.83 mmBtu/hr	Clean burning fuels	None	PM/PM-10	7/9/2019

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
3 (PH2-2B)	PHS-2	Package Boiler Number 2 Fuel Oil – secondary fuel (NSPS Db)	247 mmBtu/hr	Low sulfur fuels, not to exceed 0.2% and low nitrogen fuels, not to exceed 0.3% by weight.	None	SO2 & NOx	7/9/2019
4 (WY-1B) (WY-1Ba., WY- 1B.b, WY-1B.c)	Fugitive	Wood Yard Debarker (1B.a), Chipper (WY-1B.b), Conveyor (WY-1B.c)	1,600 BDT/day BDT = Bone Dry Tons	None	None	None	7/9/2019
1 (TMP-1)	Fugitive	Themomechanical Pulping Process (TMP) Entire Wood Fiber Line	942 ADT/Day ADT = Air Dry Tons	-	-	PM/PM-10	7/9/2019
1 (TMP-1A)	TMPS-1A	TMP Latency Transfer Chest and Rejects Chest	942 ADT/Day ADT = Air Dry Tons	TMP Heat Recovery System No. 1	TMPC-1A	VOC Rated at 40.5 %	RACT July 12, 1996 Consent Agreement
1 (TMP-1B)	TMPS-1B	TMP Steam Tubes and Atmospheric Refiners	942 ADT/Day ADT = Air Dry Tons	TMP Heat Recovery System No. 2	TMPC-1B	VOC Rated at 40.5 %	RACT July 12, 1996 Consent Agreement
1 (TMP-1C)	TMPS-1C	TMP Thickener	942 ADT/Day ADT = Air Dry Tons	None	None	None	RACT July 12, 1996 Consent Agreement
1 (TMP-1D)	TMPS-1C	TMP Reject Refiners	942 ADT/Day ADT = Air Dry Tons	None	None	None	RACT July 12, 1996 Consent Agreement
5 (WWTP- 1)	Fugitive	Wastewater Treatment Plant – hydraulic cap.	4.2 MGD and 4.8 MGD daily max. MGD = mm gal/day	None	None	None	Letter: Re-rating WWTP June 10, 2002
6 (PM-1A)	VENTS PM 1-12	Paper De-watering, Forming and Drying	39 BDT/hr BDT = Bone Dry Tons	None	None	VOC	

819 Virginia LLC Permit Number: PRO50840 Page 6

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
6 (PM-1B)	VENTS PM 1-12	Paper Machine Cleaning	39 BDT/hr BDT = Bone Dry Tons	None	None	VOC	
7 (RPM01)	Fugitive	Recycle Facility: Drum Pulper, Screens, Flotation Cells, Disc Thickener, Double Wire Press, Post- Flotation, Drum Washer	254 BDT/day - output	None	None	PM/PM-10 & VOC	
8 (MI-I1)	Fugitive	2 Parts Washers – Non Halogen – Safety Kleen Services.	60 gallons - Total combined capacity. 2 @ 30 gallons.	None	None	VOC	
9 (LF-1)	Fugitive	Landfill surface	None	None	None	PM/PM-10	
10 (MI-I5)	NA	Emergency Diesel Fire Pump	270 hp	None	None	NOx	

^{*}The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

Page 7

Fuel Burning Equipment Requirements: B&W COMBINATION BOILER (ID#2)

1. **Fuel Burning Equipment Requirements – (ID#2) – Limitations -** Particulate Matter (PM) and PM-10 emissions from the combination boiler, Unit Ref. No. 2, shall be controlled by a multi-cyclone followed by an electrostatic precipitator. The electrostatic precipitator shall be equipped with monitoring devices that continuously measure the primary voltage, primary current and secondary current. The electrostatic precipitator shall be provided with adequate access for inspection. (9 VAC 5-80-110 and Condition 2 of the 7/9/2019 Permit)

- 2. **Fuel Burning Equipment Requirements (ID#2) Limitations -** Carbon monoxide emissions from the combination boiler, Unit Ref. No. 2, shall be controlled by the coal and wood waste burner arrangement. (9 VAC 5-80-110 and Condition 3 of the 7/9/2019 Permit)
- 3. **Fuel Burning Equipment Requirements (ID#2) Limitations -** Sulfur dioxide emissions from the combination boiler, Unit Ref. No. 2, shall be controlled by required use of low sulfur fuel and shall not exceed 0.2 percent by weight per shipment.

 (9 VAC 5-80-110 and Condition 5 of the 7/9/2019 Permit)
- 4. **Fuel Burning Equipment Requirements (ID#2) Limitations -** Volatile Organic Compound emissions (VOC) from the combination boiler, Unit Ref. No. 2, shall be controlled by the use of good combustion practices.

(9 VAC 5-80-110 and Condition E-3 of the July 12, 1996 RACT Consent Agreement)

5. **Fuel Burning Equipment Requirements – (ID#2) – Limitations -** The oxygen content of the flue gas, of the combination boiler, Unit Ref. No. 2, shall not be less than 2 percent by weight when the boiler is firing wood waste and paper sludge/paper waste in excess of four hundred and fifty tons per day. The combination boiler shall be equipped with an oxygen sensor. The oxygen sensor shall be maintained such that it is in proper working order at all times. The oxygen content of the boiler shall be recorded a minimum of once every eight hour shift when the combination boiler is firing wood waste and paper sludge/paper waste in excess of 450 tons per day. The oxygen readings shall be used to calculate a thirty day rolling average.

(9 VAC 5-80-110 and Condition 9 of the 7/9/2019 Permit)

- 6. **Fuel Burning Equipment Requirements (ID#2) Limitations -** The approved fuels for the combination boiler, Unit Ref. No. 2, are bituminous coal, distillate oil, natural gas, propane, wood waste, and paper waste/sludge resulting from paper recycling, the TMP process and wastewater treatment at the facility. A change in the fuels may require a permit to modify and operate.

 (9 VAC 5-80-110 and Condition 17 of the 7/9/2019 Permit)
- 7. **Fuel Burning Equipment Requirements (ID#2) Limitations -** The sulfur and ash content of the coal to be burned in the combination boiler, Unit Ref. No. 2, shall not exceed 1.2 percent and 12 percent by weight, respectively, per shipment. The permittee shall maintain records (supplier fuel analysis) of all coal shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 18 of the 7/9/2019 Permit)

8. **Fuel Burning Equipment Requirements – (ID#2) – Limitations -** The combination boiler shall consume no more than 94,608 tons of coal per year*, 450 tons per day and 164,250 ton per year of wood waste and paper sludge/paper waste, 13.2 x 10⁶ gallons of distillate oil per year, 45.55 x 10⁶ cubic feet of natural gas per year and 1.19 x 10⁶ gallons of propane per year calculated as the sum of each consecutive 12 months period.

(9 VAC 5-80-110 and Condition 21 of the 7/9/2019 Permit)

*Throughput of coal is based on maximum rated capacity of the combination boiler firing coal with a heat value of 11,250 Btu/lb.

9. **Fuel Burning Equipment Requirements – (ID#2) – Limitations -** Emissions from the operation of the combination boiler, Unit Ref. No. 2, shall not exceed the limits specified below:

Page 8

PM	0.10 lbs/10 ⁶ Btu	24.3 lbs/hr	106.4 tons/yr
PM-10	0.10 lbs/10 ⁶ Btu	24.3 lbs/hr	106.4 tons/yr
Sulfur Dioxide		518.4 lbs/hr	2270.6 tons/yr
Nitrogen Oxides (as NO₂)	0.70 lbs/10 ⁶ Btu	170.1 lbs/hr	745.0 tons/yr
Carbon Monoxide		257.2 lbs/hr	1126.3 tons/yr
Volatile Organic Compounds		7.0 lbs/hr	30.7 tons/yr

(9 VAC 5-80-110 and Condition 24 of the 7/9/2019 Permit)

- 10. **Fuel Burning Equipment Requirements (ID#2) Limitations -** Visible emissions from the combination boiler, Unit Ref. No. 2, shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
 - (9 VAC 5-80-110 and Condition 26 of the 7/9/2019 Permit)
- 11. **Fuel Burning Equipment Requirements Limitations -** Visible and fugitive emissions from the affected facilities in the coal preparation plant as defined by 9 VAC 5-40-1970, shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

 (9 VAC 5-80-110, 9 VAC 5-40-1990, 9 VAC 5-40-2000 and 9 VAC 5-40-80)
- 12. **Fuel Burning Equipment Requirements (ID#2) MACT Subpart DDDDD Requirements-** Except where this permit is more restrictive than the applicable requirement, the combination boiler shall be operated in compliance with all applicable requirements of MACT DDDDD- National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The combination boiler is considered an existing hybrid suspension/grate boiler designed to burn wet biomass/bio-based solid as defined in 40 CFR 63.7490(d) and 63.7575. The requirements are as follows:

Citation	Requirement
63.7500(a)(1) and Table 2(1) and (13)	Emission Limits
63.7500(a)(2) and Table 4(4)(7)(8)	Operating Limits
63.7500(a)(3)(f) and Table 3(3-6)	Work Practice Standards
63.7505(a) &(c)	Compliance Requirements
63.7505(d)	Site-Specific Monitoring Plan
63.7505(e)	Startup and Shutdown Plan
63.7510(a)(b)(c)(d)(e)	Initial Compliance Requirements
63.7515(a-f)&(i)	Performance Test Time Limits
63.7520 and Table 5(1-5)*	Performance Test Requirements
Table 7(1)(c), (4)(5)	Establishing Operating Limits
63.7521(a)(b)(c)(2)(d)(e)	Fuel analyses, fuel specifications &
	procedures
63.7525(a)	CO Monitoring Requirements
63.7525(c)	Opacity Monitoring Requirements
63.7530(a)(b)(1)(2)(4)(viii)(c)(e)(f)(h)	Initial Compliance Demonstration
63.7535	Monitoring Data Requirements
63.7540(a)(1)(2)(4)(6)(10)(13)(d) and Table 8(1)(9)(10)	Continuous Compliance
0(1)(3)(10)	

Page 9

Citation	Requirement
63.7545(a)(d)(e)(f)	Notification Requirements
63.7550(a)(b)(c)(d)(h) and Table 9	Reporting Requirements
63.7555(a)(1)&(2),(b)(c)(d)(1)(4-8)(10-11) and	Recordkeeping Requirements
63.7560	
63.7565 and Table 10	General Provisions

^{*}The source will test either PM or TSM.

(9VAC5-80-110 and 40 CFR 63 Subpart DDDDD)

- 13. **Fuel Burning Equipment Requirements (ID#2) Monitoring -** A continuous monitoring system for measuring and recording the nitrogen oxides emissions from the combination boiler, Unit Ref. No. 2, stack shall be installed, calibrated, maintained and operated by the owner or operator unless it is demonstrated during performance tests that the emissions of nitrogen oxides is 30 percent or more below the allowable of 0.70 pounds/10⁶ BTU heat input (less than 0.49 pounds/10⁶ BTU heat input). (9 VAC 5-80-110 and Condition 11 of the 7/9/2019 Permit)
- 14. **Fuel Burning Equipment Requirements (ID#2) Monitoring -** A continuous monitoring system for measuring and recording the opacity of the combination boiler, Unit Ref. No. 2, stack emissions shall be installed, calibrated, maintained and operated by the owner or operator. (9 VAC 5-80-110 and Condition 12 of the 7/9/2019 Permit)
- 15. **Fuel Burning Equipment Requirements (ID#2) Monitoring -** The continuous monitoring data generated by the opacity monitor may, at the discretion of the Board, be used as evidence of violation of the emission standards. These data shall be kept on file and made available to the Department upon request.

(9 VAC5-80-110 and Condition 15 of the 7/9/2019 Permit)

16. Fuel Burning Equipment Requirements – Monitoring - The permittee shall conduct an observation of the presence of visible emissions on the affected facilities in the coal preparation plant at least once each calendar month in which the emission units operate. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions of 20 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken

(9VAC 5-80-110)

17. **Fuel Burning Equipment Requirements – (ID#2) - Compliance Assurance Monitoring (CAM) -** The permittee shall monitor, operate, calibrate and maintain the multi-cyclone followed by an electrostatic precipitator controlling the combination boiler according to the CAM Plan in this permit and the CAM requirements in Conditions 89-97.

(9VAC5-80-110 and 40 CFR 64.6 (c))

- 18. **Fuel Burning Equipment Requirements (ID#2) Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:
 - a. Annual throughput of (each permitted fuel) coal, distillate oil, propane, natural gas, wood waste and paper waste/sludge fired in the combination boiler, Unit Ref. #2, calculated monthly as the sum of each consecutive 12-month period.
 - b. Certification for each coal shipment purchased, indicating sulfur (not to exceed 1.2 percent) content and ash (not to exceed 12 percent) content by weight, respectively, per shipment.

Page 10

c. Oil shipments purchased, indicating fuel supplier, date on which the oil was received, volume of distillate oil delivered, the sulfur (not to exceed 0.2 percent) and nitrogen (not to exceed 0.3 percent) content by weight per shipment.

- d. CEM records for the B&W combination boiler.
- e. Once per shift the electrostatic precipitator meter/gauge readings to include the primary and secondary voltage and amperage readings.
- f. The combination boiler flue gas oxygen content shall be recorded when the boiler is firing wood, wood waste, and paper sludge/paper waste in excess of four hundred and fifty tons per day. The oxygen readings shall be averaged on a thirty day rolling basis.
- g. Monthly visible observations of the affected facilities in the coal preparation plant.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 28a, b, c, e, f and g of the 7/9/2019 Permit)

- 19. **Fuel Burning Equipment Requirements (ID#2) Testing -** Performance tests shall be conducted for PM-10 from the exhaust of the electrostatic precipitator controlling the combination boiler to determine compliance with the emission limits requirements contained in Conditions 9, 10 and 12 and to determine CAM monitoring data as required in Condition 17. The tests shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. The permittee shall submit the proposed CAM monitoring data within 45 days after the performance test completion. (9 VAC 5-50-30, 9 VAC 5-80-110, and 9 VAC 5-50-410)
- 20. Fuel Burning Equipment Requirements (ID#2) Testing At an interval not to exceed five years, the facility shall conduct a performance test for CO and VOC from the exhaust of the combination boiler to determine compliance with the emission limitations listed in Condition 9 of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

Fuel Burning Equipment Requirements: PACKAGE BOILER – (ID#3)

- 21. **Fuel Burning Equipment Requirements (ID#3) Limitations -** Nitrogen oxide emissions from the package boiler, Unit Ref. No. 3, shall be controlled by boiler design, and good operation procedures. The package boiler shall be provided with adequate access for inspection. (9 VAC 5-80-110 and Condition 4 of the 7/9/2019 Permit)
- 22. Fuel Burning Equipment Requirements (ID#3) Limitations Sulfur dioxide emissions from the package boiler, Unit Ref. No. 3, shall be controlled by required use of low sulfur fuel and shall not exceed 0.2 percent by weight per shipment. (9 VAC 5-80-110 and Condition 5 of the 7/9/2019 Permit)

Page 11

- 23. **Fuel Burning Equipment Requirements (ID#3) Limitations -** Particulate matter emissions from the package boiler, Unit Ref. No. 3, shall be controlled by the use of clean burning fuels. (9 VAC 5-80-110 and Condition 6 of the 7/9/2019 Permit)
- 24. **Fuel Burning Equipment Requirements (ID#3) Limitations -** Carbon monoxide and VOC emissions from the package boiler set, Unit Ref. No. 3, shall be controlled by the use of good combustion operating practices.
 - (9 VAC 5-80-110, Condition E-3 of the July 12, 1996 RACT Consent Agreement and Condition 7 of the 7/9/2019 Permit)
- 25. **Fuel Burning Equipment Requirements (ID#3) Limitations -** The maximum nitrogen content of the oil to be burned in the package boiler, Unit Ref. No. 3, shall not exceed 0.3 percent by weight per shipment. The sulfur content of the oil to be burned at the facility shall not exceed 0.2 percent by weight per shipment. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier
 - b. The date on which the oil was received
 - c. The volume of distillate oil delivered in the shipment
 - d. The nitrogen and sulfur content of the oil

These records shall be available on site for inspection by the DEQ. Such records shall be current for the most recent five years.

(9 VAC 5-80-110, 40 CFR 60.44b(j) and Conditions 10 and 19 of the 7/9/2019 Permit)

26. **Fuel Burning Equipment Requirements – (ID#3) – Limitations -** The package boiler, Unit Ref. No. 3, shall consume no more than the following:

Natural Gas	234 x 10 ³ ft ³ per hour	673.9 x 10 ⁶ ft ³ per year
Propane	2.66 x 10 ³ gal per hour	7.66 x 10 ⁶ gal per year
No. 2 Fuel Oil	1890 gal per hour	5.40 x 10 ⁶ gal per year

When using a combination of natural gas, propane and No. 2 fuel oil during any calendar year, the annual heat input shall not exceed 2.12 x 10¹² BTU based on a higher heating value of 1042 BTU/ft³ for natural gas, 91,690 BTU/GAL for propane, and 1.31x10⁵ BTU/gal for No. 2 fuel oil. (9 VAC 5-80-110, 40 CFR 60, Subpart Db and Condition 22 of the 7/9/2019 Permit)

27. **Fuel Burning Equipment Requirements – (ID#3) – Limitations -** Criteria pollutant emissions from the operation of the package boiler, Unit Ref. No. 3, shall not exceed the limitations specified below:

NATURAL GAS

	Pounds per 10 ⁶ BTU	Pounds per hour
PM	5.1 x 10 ⁻³	1.24
PM-10	5.1 x 10 ⁻³	1.24
Sulfur Dioxide	2.8 x 10 ⁻³	0.68
(3-hour rolling average)		
Nitrogen Oxides (30-day rolling average)	1.0 x 10 ⁻¹	24.4
Carbon Monoxide		4.9
Volatile Organic Compounds		2.44

Page 12

PROPANE/AIR MIXTURE

	Pounds per 10 ⁶ BTU	Pounds per hour
PM	5.1 x 10 ⁻³	1.24
PM-10	5.1 x 10 ⁻³	1.24
Sulfur Dioxide (3-hour rolling average)	2.8 x 10 ⁻³	0.68
Nitrogen Oxides (30-day rolling average)	1.0 x 10 ⁻¹	24.4
Carbon Monoxide		4.9
Volatile Organic Compound	S	2.44

NO. 2 FUEL OIL

	Pounds per 10 ⁶ BTU	Pounds per hour
РМ	1.0 x 10 ⁻¹	24.7
PM-10	1.0 x 10 ⁻¹	24.7
Sulfur Dioxide (3-hour rolling average)	2.2 x 10 ⁻¹	54.34
NO _x . (30-day rolling average)	1.0 x 10 ⁻¹	24.7
Carbon Monoxide		4.9
Volatile Organic Compounds		2.5
Lead		0.002

Must be met at all times except start-ups, shutdowns including malfunctions. PACKAGE BOILER MAXIMUM ANNUAL EMISSIONS TONS PER YEAR

PM	35.6 tons/yr
PM-10	35.6 tons/yr
Sulfur Dioxide	78.2 tons/yr
Nitrogen Oxides	36.7 tons/yr
Carbon Monoxide	7.3 tons/yr
Volatile Organic Compounds	3.7 tons/yr
Lead	0.003 tons/yr

(9 VAC 5-80-110, 40 CFR 60.44b(a),(h)&(i) and Condition 25 of the 7/9/2019 Permit)

28. **Fuel Burning Equipment Requirements – (ID#3) – Limitations -** Visible emissions from package boiler, Unit Ref. No. 3, exhaust shall not exceed 10 percent opacity, except during one six-minute period per hour which shall not exceed 20 percent opacity.

(9 VAC 5-80-110 and Condition 27 of the 7/9/2019 Permit)

29. **Fuel Burning Equipment Requirements – (ID#3) – MACT Subpart DDDDD Requirements-** Except where this permit is more restrictive than the applicable requirement, the package boiler shall be operated in compliance with all applicable requirements of MACT DDDDD- National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The package boiler is considered an existing unit designed to burn gas 1 fuels as defined in 40 CFR 63.7490(d) and 63.7575. The requirements are as follows:

Citation	Requirement
63.7500(a)(1),(a)(3),(e)(f) and Table 3(3)(4)	Work Practice Standards
63.7505(a)	Compliance Requirement
63.7510(a)(2)(i-iii)(e)	Initial Compliance Requirements
63.7515(d)	Performance Test Time Limits
63.7530(e)(f)	Initial Compliance Demonstration

Page 13

Citation	Requirement
63.7540(a)(2)(10)(13)(d)	Continuous Compliance
63.7545(a)(e)(f)	Notification Requirements
63.7550(a)(b)(c)(d)(h) and Table 9	Reporting Requirements
63.7555(a)(1)&(2) and 63.7560	Recordkeeping Requirements
63.7565 and Table 10	General Provisions

(9VAC5-80-110 and 40 CFR 63 Subpart DDDDD)

- 30. **Fuel Burning Equipment Requirements (ID#3) Monitoring -** The permittee shall monitor the package boiler, Unit Ref. No. 3, steam generating unit operating conditions and predict NO_x emission rates as specified in the package boiler operating plan for NO_x predictions submitted to and approved by the Department (Piedmont Regional Office).

 (9 VAC 5-80-110, 40 CFR 60.48b(g)(2) and Condition 13 of the 7/9/2019 Permit)
- 31. **Fuel Burning Equipment Requirements (ID#3) Monitoring -** A continuous opacity monitoring system shall be installed on the package boiler, Unit Ref. No. 3, stack to measure opacity when the boiler is burning No. 2 fuel oil. The continuous opacity monitor shall be installed and operational within ninety calendar days of the actual firing of No. 2 oil in the package boiler. The opacity monitor shall be performance-tested in accordance with EPA Performance Specification No. 1 (40 CFR 60, Appendix B). A thirty day notification prior to the demonstration of continuous monitoring system performance and subsequent notification

(9 VAC 5-80-110, 40 CFR 60.48b(a) and Condition 14 of the 7/9/2019 Permit)

requirements, are to be submitted to the Piedmont Regional Office.

32. **Fuel Burning Equipment Requirements – (ID#3) – Monitoring -** The continuous monitoring data generated by the opacity monitor may, at the discretion of the Board, be used as evidence of violation of the emission standards. These data shall be kept on file and made available to the Department upon request.

(9 VAC 5-80-110 and Condition 15 of the 7/9/2019 Permit)

33. **Fuel Burning Equipment Requirements – (ID#3) – Monitoring -** The opacity monitoring systems shall meet a minimum data availability of 90 percent of package boiler, Unit Ref. No. 3, operating hours on a 12-month rolling average.

(9 VAC 5-80-110 and Condition 16 of the 7/9/2019 Permit)

- 34. **Fuel Burning Equipment Requirements (ID#3) Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:
 - a. Annual throughput of (each permitted fuel) distillate oil, propane, and natural gas fired in the package boiler, Unit Ref. #3, calculated monthly as the sum of each consecutive 12-month period.
 - b. Oil shipments purchased, indicating fuel supplier, date on which the oil was received, volume of distillate oil delivered, the sulfur (not to exceed 0.2 percent) and nitrogen (not to exceed 0.3 percent) content by weight per shipment.
 - c. Records of predicted NO_x emission rates and the monitored operating conditions, including steam generating unit load, identified in the package boiler operating plan. (40 CFR 60.49b(c))
 - d. Records for each steam generating unit (ID#3) operating day as required by 40 CFR 60.49b(g).
 - e. CEM records for the package boiler upon compliance with Condition 31 of the Title V Permit.
 - f. Records of the amounts of each fuel combusted during each day and the annual capacity factor individually for distillate oil and natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

Page 14

g. Fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC 5-80-110, 40 CFR 60.49b(c), 40 CFR 60.49b(g), 40 CFR 60.49b(r), 40 CFR 60.49b(f), 40 CFR 60.49b(

35. **Fuel Burning Equipment Requirements – (ID#3) – Testing –** Compliance with the NOx emission standards under 40 CFR 60.44b in Condition 27 shall be determined through performance testing under 40 CFR 60.46b(e).

(9VAC5-80-110 and 40 CFR 60.46b(c))

36. **Fuel Burning Equipment Requirements – (ID#3) – Testing –** At an interval not to exceed five years, the facility shall conduct a performance test for PM, NO_x, CO, VOC and lead* (*No.2 fuel only) from the exhaust of the package boiler while firing on the fuel type that was used most over the previous 12 months to determine compliance with the emission limitations listed in Condition 27 of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Piedmont Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9VAC5-80-110)

- 37. **Fuel Burning Equipment Requirements (ID#3) Reporting -** The permittee shall submit fuel quality reports to the Piedmont Regional Office, within thirty days after the end of each calendar quarter. If no shipments of distillate oil were received during the calendar quarter, the quarterly report shall consist of the dates included in the calendar quarter and a statement that no oil was received during the calendar quarter. If distillate oil was received during the calendar quarter the reports shall include:
 - a. The dates included in the calendar quarter,
 - b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the calendar quarter or a quarterly summary from each fuel supplier that includes the information specified in Condition 25 for each shipment of distillate oil, and
 - A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility.
 (9 VAC 5-80-110)
- 38. Fuel Burning Equipment Requirements (ID#3) Reporting When permit condition number 31 becomes applicable and the permittee has installed an opacity monitor, the permittee shall submit reports to the Piedmont Regional Office within thirty days after the end of each calendar quarter as described in 40 CFR 60.49b(h). Details of the quarterly reports are to be arranged with the Piedmont Regional Office. With regard to the opacity monitor, the quarterly report shall include excess emission and monitoring system downtime reports and/or summaries in accordance with 40 CFR § 60.7(c) and (d). Excess opacity emissions are defined as periods for which the average opacity exceeds the limit stated in Condition 28 of this permit.

(9 VAC 5-80-110, 40 CFR 60.49b(h)(1), 40 CFR 60.49b(v) and Condition 30 of the 7/9/2019 Permit)

39. **Fuel Burning Equipment Requirements – (ID#3) – Reporting –** The permittee shall submit emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as any calculated 30-day rolling average NOx emission rate, as determined under 40 CFR 60.46b(e), that exceeds the applicable emission limits in 40 CFR 60.44b (Condition 27). (9 VAC 5-80-110, 40 CFR 60.49b(h)(2)&(4) and 40 CFR 60.49b(v))

Page 15

40. **Fuel Burning Equipment Requirements – (ID#3) – Reporting –** The permittee shall submit reports certifying that only very low sulfur oil meeting this definition, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period. All reports shall be postmarked by the 30th day following the end of each 6 month period. (9 VAC 5-80-110, 40 CFR 60.49b(r)(1) and 40 CFR 60.49b(w))

Wood Yard Equipment Requirements – Wood Yard – (ID#4)

41. **Wood Yard Equipment Requirements – (ID#4) – Limitations -** Particulate emissions from the slashing process shall be controlled by good air pollution control practices. The slashing process shall be provided with adequate access for inspection.

(9 VAC 5-40-80, 9 VAC 5-40-330, 9 VAC-5-50-300 and 9 VAC 5-80-110)

42. **Wood Yard Equipment Requirements – (ID#4) – Limitations -** Particulate emissions from coal handling, slashing, debarking and chipping process operations shall not exceed the standards set in 9 VAC 5 Chapter 40 Article 4, table 4-4A. (9VAC5-40-260 and 9 VAC 5-80-110)

- 43. **Wood Yard Equipment Requirements (ID#4) Limitations -** Fugitive dust shall be controlled as follows and in accordance with in 9 VAC 5 Chapter 40 Articles 1 and 4, and 9 VAC 5 Chapter 50 Article 1:
 - a. Emissions from the chipper shall be controlled by: an enclosed building and use of covered belt conveyors for the transport of chips;
 - b. Coal shall be stored in a storage pile and conveyed to the boiler using a covered conveyor;
 - c. All material being stockpiled shall be kept moist, as needed, to control dust during storage and handling to minimize emissions.
 - d. Haul roads shall be controlled by wet suppression, asphalt, or other suitable chemicals, as needed. The main entrance road shall be paved. Reasonable precautions shall be taken to prevent disposition of dirt on public roads and subsequent dust emissions. Dirt spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

(9 VAC 5-80-110 and Condition 8 of the 7/9/2019 Permit)

- 44. **Wood Yard Equipment Requirements (ID#4) Limitations -** Good air pollution control practices and enclosure shall control particulate emissions from the debarking/chipping process. The debarking/chipping process and enclosure shall be provided with adequate access for inspection. (9 VAC 5-50-20 and 9 VAC 5-80-110)
- 45. **Wood Yard Equipment Requirements (ID#4) Limitations -** Visible emission from the debarking/chipping process shall not exceed 20 percent opacity except during one six-minute period in any one-hour in which visible emissions shall not exceed 30 percent opacity. (9 VAC 5-50-80 and 9 VAC 5-80-110)
- 46. Wood Yard Equipment Requirements (ID#4) Monitoring The permittee shall conduct an observation of the presence of visible emissions on the debarking/chipping process enclosure vents at least once each calendar month in which the emissions unit operates. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions of 20 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken.

(9VAC 5-80-110 and 9 VAC 5-50-50)

Page 16

47. Wood Yard Equipment Requirements – (ID#4) – Recordkeeping - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to records of visual emissions observations, VEE results and corrective actions. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-50-50 and 9 VAC 5-80-110)

Thermomechanical Pulp Mill Equipment Requirements – (ID#1)

- 48. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limtations VOC emissions from the steam tubes, primary refiners, and secondary refiners for the four TMP lines shall be controlled by a double pass, plate, and frame water heat exchanger/condenser equipped with a quench water spray. The two stage heat exchanger/condenser shall use water as the heat transfer medium.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-4 of the July 12, 1996 RACT Consent Agreement)
- 49. **Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limtations -** VOC emissions from the latency transfer chest and the rejects latency chest for the four TMP lines shall be controlled by a double pass, plate, and frame heat exchanger/condenser. The first stage of the heat exchanger/condenser shall use water as a heat transfer medium. The second stage of the condenser shall use glycol as the heat transfer medium.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-5 of the July 12, 1996 RACT Consent Agreement)
- 50. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limtations The permittee shall maintain a minimum overall VOC emission removal efficiency of forty point five percent on a mass basis from the TMP emissions sources which follow: steam tubes, primary refiners, secondary refiners, latency transfer chest, and rejects latency chest from all four TMP lines.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-6 of the July 12, 1996 RACT Consent Agreement)
- 51. **Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limitations -** The glycol heat transfer system shall operate at a minimum flow rate of three hundred gallons per minute. (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-9 of the July 12, 1996 RACT Consent Agreement)
- 52. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limtations The two water heat transfer systems shall operate at a minimum flow rate of two hundred gallons per minute.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-10 of the July 12, 1996 RACT Consent Agreement)
- 53. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limitations The heat exchangers/condensers shall operate at all times when the TMP mill is in operation.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-12 of the July 12, 1996 RACT Consent Agreement)
- 54. **Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limitations -** The condensation from the two heat exchangers/condensers shall be discharged to the Waste Water Treatment Plant. (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-18 of the July 12, 1996 RACT Consent Agreement)
- 55. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Limtations In order to minimize the duration and frequency of excess emissions due to the malfunctions of process or air pollution control equipment, the permittee shall:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance, including dates and duration of any outages. These records shall be maintained on site for a period of five years and shall be made available to the DEQ upon request.
 - b. Maintain an inventory of spare parts that are needed to minimize duration of air pollution control equipment breakdowns.
 - (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-23 of the July 12, 1996 RACT Consent Agreement)

Page 17

Thermomechanical Pulp Mill Equipment Requirements – (ID#1) – Monitoring - The three heat transfer systems contained in the two heat exchangers/condensers shall be equipped with inlet temperature and outlet temperature gauges. The inlet and outlet heat transfer system temperatures shall be measured continuously. The inlet and outlet temperatures shall be recorded once per eight hour shift. The inlet and outlet temperatures shall be used to calculate a temperature differential for each heat transfer system. The temperature differentials shall be averaged on a daily basis. All continuous monitoring devices shall be maintained and calibrated in accordance with the manufacturer's specifications. At a minimum the continuous monitoring devices shall be calibrated annually and the results of the calibrations recorded.

Three standard deviations will be used to determine the minimum temperature differentials for the two exchangers/condensers, which are as follows:

HRS #1 – Water Side: 45°F HRS #1 – Glycol Side: 4°F HRS #2 – Water Side: 53°F

(9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-7 of the July 12, 1996 RACT Consent Agreement)

- 57. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Monitoring The two water heat transfer systems shall be equipped with liquid flow meters. The meters shall measure the amount of liquid flowing through the water heat transfer system continuously. The information from the meters shall be recorded once per eight hour shift to calculate an average daily liquid flow rate.

 (9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-8 of the July 12, 1996 RACT Consent Agreement)
- 58. **Thermomechanical Pulp Mill Equipment Requirements (ID#1) Monitoring -** The three heat transfer systems shall be equipped with alarms indicating the absence of liquid flowing to the two heat exchangers/condensers. The alarms shall be maintained in accordance with the manufacturer's specifications.

(9 VAC 5-80-110, 9 VAC 5-40-7390 and Condition E-11 of the July 12, 1996 RACT Consent Agreement)

59. Thermomechanical Pulp Mill Equipment Requirements – (ID#1) – Monitoring - Compliance Assurance Monitoring (CAM) - The permittee shall monitor, operate, calibrate and maintain the double pass (two stage) plate and frame heat exchanger/condenser system controlling the Thermomechanical Pulp Mill (TMP), Unit Ref. # 1, process according to the following CAM Plan and the CAM requirements in Conditions 89-97.

Conditions 69-97.		
Indicator	Indicator 1: Liquid Flow Rate of the heat transfer medium	Indicator 2: Inlet and Outlet Temperatures of the heat transfer system
Measurement Approach	Measuring the flow rate of the heat transfer medium with a liquid flow meter.	Measuring the inlet and outlet temperatures of the heat transfer systems with temperature gauges.
Indicator Range	For Systems using water as the heat transfer medium: Minimum flow rate of 200 gallons per minute per Condition E-10 of the July 12, 1996 RACT	Three (3) standard deviations will be used to determine the following minimum temperature differentials:
	Agreement.	For System using only water as the heat transfer medium: 53° F
	For Systems using glycol as the heat transfer medium: Minimum flow rate of 300 gallons per minute per Condition E-9 of the July 12, 1996 RACT Agreement.	For System using water and glycol as the heat transfer medium: Water Side: 45° F Glycol Side: 4° F
	An excursion is defined as any operating condition where the measured/recorded once per eight hour shift flow rate exceeds the permitted minimum flow rate.	An excursion is defined as any operating condition where the measured/recorded once per eight hour shift inlet/outlet temperature exceeds the permitted minimum temperature differentials.
	When an excursion occurs, corrective actions will be initiated, beginning with	•

Page 18

	an evaluation of the occurrence to determine the action required to correct the situation. Excursions will be documented.	an evaluation of the occurrence to determine the action required to correct the situation. Excursions will be documented.
QIP Threshold	The selected QIP threshold is excursions occurring in 5% of the total days of operation in a 6-month period.	The selected QIP threshold is excursions occurring in 5% of the total days of operation in a 6-month period.
Performance Criteria	The water and glycol flows rates are critical for the performance of the heat exchanger/condenser system. Flow meter readings are recorded at least once per eight (8) hour shift to calculate an average daily liquid flow rate in gallons per minute for each system.	The temperature differential of the inlet and outlet temperature of the exchanger/condenser system is indication of the how the system is performing. The inlet and outlet temperatures readings are recorded once per eight (8) hour shift and used to calculate an average daily temperature differential for each heat transfer system.
Data Representativeness	The flow meters are located to measure the flow of the liquid heat medium of the systems.	The temperature probes are located at specific locations to measure the inlet and outlet temperatures of the system.
Verification of Operational Status	Systems are equipped with "no flow" alarms. Flow is continuously monitored and flow meter readings are recorded once per 8-hour shift.	Temperature is continuously monitored and temperature readings are recorded once per 8-hour shift.
QA/QC Practices and Criteria	Flow meters will be calibrated at least annually, in accordance with the manufacturer's specifications.	Temperature gauges will be calibrated at least annually, in accordance with the manufacturer's specifications.
Monitoring Frequency	Continuously measure the amount of liquid flowing through the system.	Continuously measure the inlet and outlet temperatures of the heat transfer systems
Data Collection Procedures	Meter readings are recorded at least once per eight (8) hour shift.	The inlet and outlet temperatures are recorded once per eight (8) hour shift.

(9VAC5-80-100 and 40 CFR 64.6(c))

- 60. Thermomechanical Pulp Mill Equipment Requirements (ID#1) Recordkeeping The permittee shall maintain records of all operating parameters necessary to demonstrate compliance. These records shall be maintained for the two heat exchangers/condensers and associated continuous temperature and flow monitoring equipment and shall include the following:
 - a. a maintenance schedule for the heat exchangers/condensers and associated monitoring equipment;
 - b. scheduled and unscheduled maintenance records;
 - c. an inventory of spare parts that are needed to minimize durations of equipment breakdowns;
 - d. written operating procedures;
 - e. heat transfer medium inlet and outlet temperatures and temperature differentials (recorded once per eight hour shift);
 - f. liquid flow for the two water heat transfer systems (recorded once per eight hour shift);
 - g. operating hours and capacity for the four TMP lines recorded daily used to calculate a ninety day rolling average;
 - h. results of annual calibrations of the water temperature and flow monitors.

Page 19

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-40-7390 and Condition E-22 of the July 12, 1996 RACT Consent Agreement)

Waste Water Treatment Plant Requirements – (ID#5)

- 61. Waste Water Treatment Plant Equipment Requirements (ID#5) Limitations Emissions from the operation of the Waste Water Treatment Plant (WWTP) shall be controlled by good operating practices. (9 VAC 5-80-110 and Condition E-19 of the July 12, 1996 RACT Consent Agreement)
- 62. **Waste Water Treatment Plant Equipment Requirements (ID#5) Monitoring -** All WWTP established parameters used to calculate emissions by the use of appropriate models shall be monitored. (9 VAC 5-40-7500 and 9 VAC 5-80-110)
- 63. Waste Water Treatment Plant Equipment Requirements (ID#5) Recordkeeping The permittee shall maintain records of all WWTP operating parameters use to calculate emissions to demonstrate compliance with Condition 61 of this permit. The permittee shall maintain records of annual emissions calculations and supporting data. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
 (9 VAC 5-40-7510 and 9 VAC 5-80-110)

Paper Mill Equipment Requirements - Paper Machine - (ID#6)

- 64. **Paper Mill Equipment Requirements (ID#6) Limitations -** Emissions from the operation of the paper machine shall be controlled by good operating practices. (9 VAC 5-80-110 and 9 VAC 5-50-20)
- 65. **Paper Mill Equipment Requirements (ID#6) Limitations -** Emissions from the cleaning of the paper machine shall be controlled by the use of good cleaning practices. (9 VAC 5-80-110 and 9 VAC 5-50-240)
- 66. Paper Mill Equipment Requirements (ID#6) Monitoring Operating and cleaning practices and established parameters used to calculate emissions from the operation of and cleaning of the paper machine shall be monitored.

 (9 VAC 5-80-110 and 9 VAC 5-50-240)
- 67. **Paper Mill Equipment Requirements (ID#6) Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. These records shall include but are not limited to the following:
 - a. Annual Volatile Organic Compound (VOC) emissions from the cleaning of the press, calculated monthly as the sum of each consecutive 12-month period.
 - b. Monthly and annual throughput of pulp to the paper machine. Annual emissions calculated from the pulp throughput shall be calculated monthly as the sum of each consecutive 12-month period.
 - c. Material Safety Data Sheets (MSDS) based on EPA Method 24 or certified product data sheets showing VOC content, toxic compound or HAP content, and water content for all cleaning solutions used on the paper machine.
 - d. Material Safety Data Sheets (MSDS) based on EPA Method 24 or certified product data sheets showing VOC content, toxic compound or HAP content, and water content for all solutions added in the paper making process.

Page 20

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and 9 VAC 5-50-240)

Recycle Plant Equipment Requirements – (ID#7)

68. **Recycle Plant Equipment Requirements – (ID#7) - Limitations-** Emissions from the operation of the Recycle Plant shall be controlled by good operating practices. (9 VAC 5-80-110 and 9 VAC 5-50-240)

Parts Washer Equipment Requirments - Non-Halogenated Cold Solvent Degreasers - (ID#8)

- 69. Parts Washer Equipment Requirements (ID#8) Limitations No owner or other person shall use or permit the use of any cold cleaner unless such cleaner is equipped with a control method that will remove, destroy or prevent the discharge into the atmosphere of at least 85% by weight of volatile organic compound emissions.
 - (9 VAC 5-80-110 and 9 VAC 5-40-3280 C)
- 70. Parts Washer Equipment Requirements (ID#8) Limitations Achievement of the emission standard in Condition 69 by use of the methods in 9 VAC 5-40-3290 C and D will be acceptable to the Board. (9 VAC 5-80-110 and 9 VAC 5-40-3280 C)
- 71. Parts Washer Equipment Requirements (ID#8) Limitations Emissions from each solvent metal cleaning operation (cold cleaning) shall be controlled as follows:
 - a. Covers or enclosed remote reservoirs should be provided. Covers shall be designed so that they can be easily operated with one hand. (Covers for large degreasers may require mechanical assistance, by spring loading, counter weighting or powered systems). Enclosed remote reservoirs should be designed such that they provide reduction effectiveness equivalent to that of a cover.
 - b. External or internal drainage facilities shall be provided to collect and return the solvent to a closed container or solvent cleaning machine. If solvent volatility is greater than 0.6 psi measured at 100°F, then the drainage facilities should be internal, so that parts are enclosed under the cover while draining. The drainage facilities may be external for applications where an internal type cannot fit into the cleaning system.
 - c. A permanent label summarizing the operating procedures in Condition 72 should be placed in a conspicuous location on or near the degreaser.
 - d. If used, the solvent spray should be a solid, fluid stream (not a fine, atomized or shower type spray) and at a pressure which does not cause excessive splashing.

(9 VAC 5-80-110 and 9 VAC 5-40-3290 C1)

- 72. Parts Washer Equipment Requirements (ID#8) Limitations The permittee shall operate each solvent cleaning operation (cold cleaning) consistent with good operating practices including the following:
 - a. Waste solvent should not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate to the atmosphere. Store waste solvent only in closed containers.
 - b. The cold cleaning unit should be closed whenever not handling parts in the cold cleaner
 - c. Cleaned parts should drain for at least 15 seconds or until dripping ceases.

(9 VAC 5-80-110 and 9 VAC 5-40-3290 C.2)

- 73. **Parts Washer Equipment Requirements (ID#8) Limitations -** The permittee shall dispose of waste solvent from the cold cleaning units by one of the following methods:
 - a. Reclamation (either by outside services or in-house)

Page 21

b. Incineration

(9 VAC 5-80-1100 and 9 VAC 5-40-3290.D)

- 74. Parts Washer Equipment Requirements (ID#8) Monitoring Cleaning machine inspections shall be conducted monthly for the area around each cleaning machine to ensure that all operational requirements are being met. At the end of six months, upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to quarterly for the next six month period. If, at any time, the operational requirements are not being met per the permit conditions, the permittee shall revert back to the monthly inspection schedule. At the end of the second six-month period, upon the permittee's request, the Department will determine the feasibility of decreasing the frequency of monitoring to semiannually. If, at any time, the operational requirements are not being met per the permit conditions, the permittee shall revert back to the quarterly inspection schedule. (9VAC5-80-110)
- 75. Parts Washer Equipment Requirements (ID#8) Recordkeeping The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Office. The records shall include, but are not limited to:
 - a. Records documenting that each solvent metal cleaning operation (cold cleaning) at the facility are in compliance with the requirements of Conditions 69-73.

(9 VAC 5-80-110 and 9VAC5-50-50F and H)

76. Parts Washer Equipment Requirements – (ID#8) – Reporting - Semiannually the permittee shall report all instances of non-compliance found during cleaning machine area inspections. The source shall also report the length of time associated with any exceedance of such a standard and the actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office. (9 VAC 5-80-110 and 9 VAC 5-50-50 H)

Industrial Landfill Equipment Requirements – (ID#9)

 Industrial Landfill Equipment Requirements – (ID#9) – Limitations - Emissions from the operation of the industrial landfill shall be controlled by good operating practices.
 (9 VAC 5-80-110 and 9 VAC 5-50-20)

Fuel Burning Equipment Requirements - Emergency Diesel Fire Pump - (ID#10)

78. Fuel Burning Equipment Requirements – (ID#10) – MACT Subpart ZZZZ Requirements - Except where this permit is more restrictive than the applicable requirement, the emission unit (ID#10) shall be operated in compliance with the applicable requirements of the MACT, 40 CFR 63, Subpart ZZZZ. The emission unit is considered an existing emergency stationary compression ignition engine as defined in 40 CFR 63.6590(a)(1)(ii) and 63.6675. The requirements are as follows:

Citation	Requirement
63.6602 and Table 2c(1)	Operating Requirements
63.6604(b)	Fuel Requirements
63.6605	Compliance Requirements
63.6625(e)(f)(h) & (i)	Monitoring and Maintenance Requirements
63.6640(a)(b) & (f) and Table 6(9)	Continuous Compliance Requirements
63.6655(a) & (d-f)	Recordkeeping Requirements
63.6665 and Table 8, except per 63.6645(a)(5)	General Provisions

(9 VAC 5-80-110 and 40 CFR 63, Subpart ZZZZ)

79. **Fuel Burning Equipment Requirements – (ID#10) – Limitations -** Visible emissions from the emergency diesel fire pump shall not exceed 20 percent opacity, except for one six-minute period in any one hour of

Page 22

not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this condition. (9 VAC 5-80-110 and 9 VAC 5-50-80)

80. Fuel Burning Equipment Requirements – (ID#10) – Monitoring - The permittee shall conduct an observation of the presence of visible emissions on the emergency diesel fire pump at least once each calendar month in which the emissions unit operates. If visible emissions are observed, the permittee shall take timely corrective actions such that the systems resume operation with no visible emissions, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the systems do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the systems resume operation with visible emissions of 20 percent or less. The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, any VEE recordings and any necessary corrective actions taken.

(9VAC 5-80-110 and 9 VAC 5-50-50)

81. Fuel Burning Equipment Requirements – (ID#10) – Recordkeeping - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to records of visual emissions observations, VEE results and corrective actions. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years. (9VAC 5-80-110 and 9 VAC 5-50-50)

Facility-Wide Conditions

- 82. **Facility Wide Conditions Limitations -** The thermomechanical pulp and paper mill must be constructed and operated as proposed in the initial submittals received by the Board up to and including May 25, 1977. If any changes are made to the thermomechanical pulp and paper process that will cause an increase in emissions of air pollutants, the permit is revoked. (9 VAC 5-80-110 and Condition 1 of the 7/9/2019 Permit)
- 83. **Facility Wide Conditions Limitations -** The sulfur content of the oil to be burned at the facility shall not exceed 0.2 percent by weight per shipment. The permittee shall maintain records (supplier fuel analysis) of all oil shipments purchased, indicating sulfur content per shipment. These records shall be available on site for inspection by the DEQ. Such records shall be current for the most recent five years. (9 VAC 5-80-110 and Condition 19 of the 7/9/2019 Permit)
- 84. Facility Wide Conditions Limitations The permittee shall provide certification for each coal shipment indicating the percent sulfur content by weight. The certification shall be based on samples taken at the coal supplier's loading facility of each coal shipment in accordance with ASTM Method D-2234, Type I, Condition B (August 1989) to determine the percent by weight content of sulfur. In addition the permittee shall obtain random samples from each shipment of coal received at the mill and analyze the samples for sulfur. The sulfur records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.
 - (9 VAC 5-80-110 and Condition 20 of the 7/9/2019 Permit)
- 85. **Facility Wide Conditions Limitations -** Except where this permit is more restrictive than the applicable requirements, the NSPS, MACT, or NESHAP equipment as described in the equipment list shall be operated in compliance with the requirements of 40 CFR 60 subpart Db. (9 VAC 5-80-110 and Condition 23 of the 7/9/2019 Permit)
- 86. **Facility Wide Conditions Limitations** The cleaning solutions used in the parts washers are non-halogen, the solutions used do contain VOC therefore 9 VAC 5 Chapter 40 Article 24 Emission Standards for Solvent Metal Cleaning Operations Using Non-Halogenated Solvents shall be applicable. Any change to the current cleaning solutions used in the parts washers may need a permit to modify. (9 VAC 5 Chapter 40, Rule 4-24)

Page 23

87. **Facility Wide Conditions – Testing -** The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.

(9 VAC 5-80-110 and Condition 29 of the 7/9/2019 Permit)

88. **Facility Wide Conditions – Testing -** If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5 -80-110)

General Compliance Assurance Monitoring (CAM) Provisions

- 89. **CAM Monitoring -** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9. (9VAC5-80-110 and 40 CFR 64.6(c))
- 90. **CAM Monitoring -** At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. (9VAC5-80-110 and 40 CFR 64.7 (b))
- 91. **CAM Monitoring** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the TMP (ID# 1) and the combination boiler (ID#2) are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.

 (9VAC5-80-110 and 40 CFR 64.7 (c))
- 92. **CAM Monitoring -** Upon detecting an excursion or exceedance, the permittee shall restore operation of the TMP (ID# 1) and the combination boiler (ID#2) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.

(9VAC5-80-110 and 40 CFR 64.7 (d)(1))

- 93. CAM Monitoring Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
 (9VAC5-80-110 and 40 CFR 64.7(d)(2))
- 94. **CAM Monitoring -** If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Piedmont Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary

Page 24

monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (9VAC5-80-110 and 40 CFR 64.7(e))

- 95. CAM Monitoring If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the TMP (ID# 1) and the combination boiler (ID#2) for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
 - a. Improved preventative maintenance practices;
 - b. Process operation changes;
 - c. Appropriate improvements to control methods;
 - d. Other steps appropriate to correct control performance; and
 - e. More frequent or improved monitoring. (9VAC5-80-110 and 40 CFR 64.8(a) and (b))
- 96. **CAM Recordkeeping** The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9VAC5-80-110 and 40 CFR 64.9(b))
- 97. **CAM Reporting -** The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by General Condition 109 of this permit to the Piedmont Regional Office. Such reports shall include at a minimum:
 - a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken:
 - b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
 (9VAC5-80-110 F and 40 CFR 64.9(a))

Insignificant Emission Units

98. **Insignificant Emission Units -** The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
PH-I2	Ash Handling	9 VAC-5-80-720 B	PM/PM-10	

Page 25

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
WWTP-I1	Oil and Water Separator	9 VAC-5-80-720 B	VOC	
WWTP-I2	Lime Silo	9 VAC-5-80-720 B	PM/PM-10	
ST-I1	Paper Machine Storage Tanks	9 VAC-5-80-720 C	VOC	< 1,000 gallons
ST-I2	TMP Storage Tanks	9 VAC-5-80-720 B	VOC	
ST-I3	WWTP Storage Tanks	9 VAC-5-80-720 C	PM/PM-10, VOC	< 1,000 gallons
ST-I4	Warehouse Storage Tanks	9 VAC-5-80-720 C	VOC	< 1,000 gallons
ST-I5	Powerhouse Storage Tanks	9 VAC-5-80-720 B	VOC	
ST-I6	Recycle Storage Tanks	9 VAC-5-80-720 B	VOC	
ST-I7	Wood Yard Storage Tanks	9 VAC-5-80-720 C	VOC	< 1,000 gallons
ST-I8	Maintenance Storage Tanks	9 VAC-5-80-720 B	VOC	
MI-I2	Cooling Towers-Non-VOC/Haps	9 VAC-5-80-720 B	-	
MI-I3	Chillers - Non-VOC/Haps	9 VAC-5-80-720 B	-	
MI-I4	Core Cutting Machine/Bevler	9 VAC-5-80-720 B	PM-10	
MI-I5	Diesel Fire Pump	9 VAC-5-80-720 C	VOC, NOx, CO, SO ₂ , PM-10	
PH-I1	Wood Waste Handling	9 VAC-5-80-720 B	PM10	
PH-I2	Coal Handling	9 VAC-5-80-720 B	PM10	
PH-I3	Ash Handling	9 VAC-5-80-720 B	PM10	
WY-I1	Log Handling	9 VAC-5-80-720 B	PM10	
WY-I2	Chip/Bark/Sludge Handling	9 VAC-5-80-720 B	PM10	
WY-I3	Wind Erosion	9 VAC-5-80-720 B	PM10	
PH-I4	TGM Steam Turbine	9 VAC-5-80-720 A, B	None	
PH-I5	Ideal Electric Generator (non- combustion)	9 VAC-5-80-720 A, B	None	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. (9VAC5-80-110)

Permit Shield & Inapplicable Requirements

99. **Permit Shield and Inapplicable Requirements -** Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in

Page 26

this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60, Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills	Not applicable because the landfill is an industrial landfill.
40 CFR 63, Subpart S	National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry	The bleaching system is exempt because it does not use any chlorine or chlorinated compounds for bleaching. (40 CFR 63.445(a))

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-110 and 9 VAC 5-80-140)

General Conditions

- 100. General Conditions Federal Enforceability All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110)
- 101. General Conditions Permit Expiration This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, the right of the facility to operate shall be terminated upon permit expiration.
 (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)
- 102. General Conditions Permit Expiration The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration. (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)
- 103. General Conditions Permit Expiration If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150. (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)
- 104. General Conditions Permit Expiration No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80. (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)
- 105. General Conditions Permit Expiration If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit

Page 27

shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied. (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

- 106. **General Conditions Permit Expiration -** The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application. (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)
- 107. General Conditions Recordkeeping and Reporting All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement. (9 VAC 5-80-110)
- 108. General Conditions Recordkeeping and Reporting Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110)

- 109. General Conditions Recordkeeping and Reporting The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
 - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to
 - (1) Exceedance of emission limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring , or compliance assurance monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110)

Page 28

110. General Conditions – Annual Compliance Certification - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-430 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov (9 VAC 5-80-110)

- 111. General Conditions Permit Deviation Reporting The permittee shall notify the Piedmont Regional Office within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 109 of this permit. (9 VAC 5-80-110 F.2)
- 112. General Conditions Failure/Malfunction Reporting In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Piedmont Regional Office of such failure or malfunction and shall within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Piedmont Regional Office. (9VAC5-80-110 and 9VAC5-20-180)
- 113. **General Conditions Failure/Malfunction Reporting -** The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification. (9VAC5-80-110 and 9VAC5-20-180)
- 114. **General Conditions Failure/Malfunction Reporting -** The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are Unit Ref. Nos. 2 and 3.

(9VAC5-80-110 and 9VAC5-20-180)

Page 29

115. **General Conditions – Failure/Malfunction Reporting -** Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the Board quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:

- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction. (9VAC5-80-110 and 9VAC5-20-180)

- 116. General Conditions Severability The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9 VAC 5-80-110)
- 117. General Conditions Duty to Comply The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. (9 VAC 5-80-110)
- 118. General Conditions Need to Halt or Reduce Activity not a Definse It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (9 VAC 5-80-110)
- 119. **General Conditions Permit Modification -** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-110, 9 VAC 5-80-190 and 9 VAC 5-80-260)
- 120. General Conditions Property Rights The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110)
- 121. General Conditions Duty to Submit Information The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110)

Page 30

122. **General Conditions – Duty to Submit Information -** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110)

123. General Conditions – Duty to Pay Fees - The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350.. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110, 9 VAC 5-80-340 and 9VAC5-80-2340)

- 124. **General Conditions Fugitive Dust Emission Standards -** During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:
 - a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land:
 - b. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
 - e. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90 and 9VAC5-80-110)

- 125. **General Conditions Startup, Shutdown, and Malfunction -** At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

 (9 VAC 5-50-20 E and 9 VAC 5-80-110)
- 126. General Conditions Alternative Operating Scenarios Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110)

Page 31

127. **General Conditions – Inspection and Entry Requirements -** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
 (9 VAC 5-80-110)
- 128. **General Conditions Reopening For Cause -** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:
 - a. The permit shall be reopened if the Board or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110)

129. **General Conditions – Permit Availability -** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 and 9 VAC 5-80-110)

- 130. General Conditions Transfer of Permits No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another. (9 VAC 5-80-110 and 9 VAC 5-80-160)
- 131. General Conditions Transfer of Permits In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within thirty days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
 (9 VAC 5-80-110 and 9 VAC 5-80-160)
- 132. General Conditions Transfer of Permits In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within thirty days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-110 and 9 VAC 5-80-160)

819 Virginia LLC

Permit Number: PRO50840

Page 32

133. General Conditions – Permit Revocation or Termination for Cause - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-110, 9 VAC 5-80-190 C and 9 VAC 5-80-260)

- 134. **General Conditions Duty to Supplement or Correct Application -** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9 VAC 5-80-110 and 9 VAC 5-80-80 E)
- 135. General Conditions Stratospheric Ozone Protection If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (9 VAC 5-80-110 and 40 CFR Part 82)
- 136. **General Conditions Asbestos Requirements -** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-80-110 and 9VAC5-60-70)

- 137. **General Conditions Accidental Release Prevention -** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (40 CFR Part 68)
- 138. General Conditions Changes to Permits for Emissions Trading No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9 VAC 5-80-110)
- 139. **General Conditions Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
 - a. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.
 - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110)

Page 33

Compliance Assurance Monitoring Plan

Emission Unit ID 2: Combination Boiler

Control Device: Multi-cyclone PHC-1A and Electrostatic Precipitator PHC-1B

Pollutant(s): PM-10

Emission Limit: 24.3 lbs/hr

CAM Description: Since the combination boiler is currently idled and not expected to operate in the near future, 819 Virginia LLC proposes the below CAM Plan. The facility will conduct a performance test for PM-10 after achieving maximum production and no later than 180 days after start-up and will establish the indicator range for total secondary power as stated below.

Justification for Selection of Performance Indicators and Ranges: The CAM indicator selected is total secondary power in the ESP which is the control device for PM-10. Control efficiency is dependent upon the ESP's total power during operaton. The source will conduct a performance test to demonstrate compliance with the PM-10 limit and will establish a minimum value for total secondary power (the indicator range) for the ESP in order to achieve compliance. Operating below the indicator range will indicate a change in the PM-10 collection efficiency of the ESP and possibley exceedance of the PM-10 limit.

CAM Plan:

Indicator: Total Secondary Power from the ESP

Measurement Approach: Secondary Power is calculated from measurement of secondary voltage and current from each precipitator field. Measurements will be taken after each transformer and prior to the electrode in each field.

Indicator Range: The total Secondary Power from the precipitator (as a 1-hour average) must be greater than or equal to the minimum value determined during the performance test so as not to exceed the PM-10 hourly permit limit. An excursion is defined as any one-hour period when the total secondary power is less than the value determined during the stack test. The performance test will be conducted according to the test plan that will be developed as required by the Title V permit.

Quality Improvement Plan (QIP) Threshold: A QIP will be developed and implemented if the number of excursions exceeds 5% duration of the operating time during a semiannual reporting period.

Data Representativeness: Secondary voltage and current are measured and recorded for each precipitator field.

Verification of Operational Status: N/A because the monitoring equipment is not new or modified.

QA/QC Practices and Criteria: The ESPs and monitoring devices will be calibrated, maintained and operated using procedures that take into account the manufacturer's specifications. This includes annual washdown and inspection of the ESP and tuning and calibration of the monitoring devices.

Monitoring Frequency: Data (secondary voltage and current for each field) is collected by the data acquisition system at least every minute and reduced to a 6-minute average. The 6-minute averages are recorded and averaged to provide a 1-hour secondary voltage and current. These will be used to calculate the hourly total secondary power.

Data Collection Procedures: Secondary voltage and current are collected by the data acquisition system and combined into an hourly average to calculate total secondary power. An alarm will occur when total secondary power is less than the value determined during the performance test. The alarm will alert the operator to the excursion which will be investigated and corrective actions taken as necessary. Records will be maintained and reported as required.